

AUG 2000
 PATENT & TRADEMARK OFFICE

Form J-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

ATTY. DOCKET NO.
M122-1398

SERIAL NO.
09/536,037

APPLICANT
Weimin Li et al.

FILING DATE
March 27, 2000

GROUP
2822

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA	6,054,379	04/25/00	Yau et al.	438	623	X
	AB	5,948,482	09/07/99	Brinker et al.	427	430.1	
	AC	5,800,877	09/01/98	Maeda et al.	427	535	
	AD	5,260,600	11/09/93	Harada	257	639	
	AE	4,992,306	02/12/91	Hochberg et al.	427	255.3	
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FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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EXAMINER
T. M. Thomas

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03/19/01

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Form 1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1398SERIAL NO.
09/536,037

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(Use several sheets if necessary)APPLICANT
Weimin Li et al.FILING DATE
March 27, 2000GROUP
2822

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA	6,017,779	01/25/00	Miyasaka	438	149	X
I	AB	6,124,641	09/26/00	Matsuura	257	759	
	AC						
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FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
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TMT	AL	JP363157443A	30.06.88	Japan (Morita)	H01L	21/90	Abstract	
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	AN							
	AO							
	AP							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

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07-27-01

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09/536,037LIST OF ART CITED BY APPLICANT
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#13

APPLICANT
Weimin (Michael) Li et al.FILING DATE
March 27, 2000GROUP
2822

U.S. PATENT DOCUMENTS

		Document Number	Date	Name	Class	Subclass	Filing Date, If Appropriate
TMT	AA	4,474,975	10-2-1984	Clemons et al.	556	410	
	AB	5,962,581	10-5-1999	Hayase et al.	524	588	
	AC	4,805,683	2-21-1989	Magdo et al.	216	40	
	AD	5,874,367	2-23-1999	Dobson	438	787	
	AE	5,858,880	1-12-1999	Dobson et al.	438	758	
	AF	5,219,613	6-15-1993	Fabry et al.	438	758	
	AG	5,270,267	12-14-1993	Quellat	438	597	
	AH	5,541,445	7-30-1996	Quellat	438	761	
	AI	6,022,404	2-8-2000	Eitlinger et al.	106	404	
	AJ	5,709,741	1-20-1998	Akamatsu et al.	106	287.11	
	AK	4,648,904	3-10-1987	DePasquale et al.	106	2	
	AL	4,158,717	6-19-1979	Nelson	428	446	
	AM	5,667,015	9-16-1997	Harestad et al.	166	383	
	AN	5,661,093	8-26-1997	Ravi et al.	438	763	
	AO	5,536,857	7-16-1996	Narula et al.	556	10	
	AP	4,695,859	9-22-1987	Guha et al.	257	64	
	AQ	5,061,509	10-29-1991	Naito et al.	427	497	
	AR	4,600,671	7-15-1986	Saitoh et al.	430	57.5	
	AS	5,753,320	5-19-1998	Mikoshiba et al.	427	572	
	AT	5,356,515	10-18-1994	Tahara et al.	438	715	
	AU	4,954,867	9-4-1990	Hosaka	257	639	
	AV	5,674,356	10-7-1997	Nagayama	438	694	
	AW	5,731,242	3-24-1998	Parat et al.	438	586	
TMT	AX	5,741,721	4-21-1998	Stevens	438	396	

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FORM 10-1449
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SERIAL NO.
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U.S. PATENT DOCUMENTS

Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA	5,376,591	12-27-1994	Maeda et al.	438	761	
	AB	5,817,549	10-6-1998	Yamazaki et al.	438	166	
	AC	6,001,741	12-14-1999	Alers	438	706	
	AD	6,072,227	6-6-2000	Yau et al.	257	642	
TMT	AE	6,786,039	7-28-1998	Brouquet	437	578	
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FOREIGN PATENT DOCUMENTS

Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA 06067019A	9/1999	Japan (Glass)(Abstract)			
	AB 6-244172	9/1994	Japan			
	AC 593,727	10/1947	GB			
	AD 5-263255	10/1993	Japan			
	AE 0 471 185 A2	7/10/91	EPO			
	AF 0 588 087 A2	8/18/93	EPO			
	AG 0 588 087 A3	8/18/93	EPO			
	AH 09055351	25/2/97	Japan			
	AI 0 778 496 A2	05/12/96	EPO			
	AJ 20029	US99	Search Report			
	AK 20030	US99	Search Report			
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LIST OF ART CITED BY APPLICANT (Use several sheets if necessary) #13				APPLICANT Weimin (Michael) Li et al.			
				FILING DATE March 27, 2000		GROUP 2822	
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
Examiner's Initials		Name					
TMT	AA		TEXT: Jenkins, F. et al., "Fundamentals of Optics", Properties of Light, pp. 9-10. (No date)				
	AB		TEXT: Wolf, S. et al., "Silicon Processing for the VLSI Era", Vol. 1, pp. 437-441. (No date)				
	AC		D.R. McKenzie et al., "New Technology for PACVD", Surface and Coatings Technology, 82 (1996), pp. 326-333.				
	AD		S. McClatchie et al., "Low Dielectric Constant Flowfill® Technology For IMD Applications"; undated; 7 pages				
	AE		K. Beekmann et al., "Sub-micron Gap Fill and In-Situ Planarisation using Flowfill™ Technology"; October 1995; pp. 1-7				
	AF		A. Kiermasz et al., "Planarisation for Sub-Micron Devices Utilising a New Chemistry", Electrotech, February 1995; 2 pages				
	AG		IBM Technical Disclosure Bulletin "Low-Temperature Deposition of SiO ₂ , Si ₃ N ₄ or SiO ₂ -Si ₃ N ₄ ," Vol. 28, No. 9, p. 4170, Feb. 1986.				
	AH		ARTICLE: Benchor, C. et al., "Dielectric antireflective coatings for DUV lithography", Solid State Technology (March 1997), pp.109-114.				
	AI		Noboru Shibata, "Plasma-Chemical Vapor-Deposited Silicon Oxide/Silicon Oxynitride Double-Layer Antireflective Coating for Solar Cells", Japanese Journal of Applied Physics, Vol. 30, No. 5, May 1991, pp. 997-1001.				
	AJ		Rolls, Kenneth M., "Introduction to Materials Science and Engineering", John Wiley & Sons, © 1976, pp. 312-313				
	AK		Ravi K. Laxman, "Synthesizing Low-k CVD Materials for Fab Use", Semiconductor International, Nov. 2000, 10 pps.				
	AL		Anonymous, "New gas helps make faster IC's, Machine Design Cleveland, © Penton Media, Inc., November 4, 1999, pp. 118				
	AM		Lobada et al., "Using Trimethylsilane to Improve Safety Throughput and Versatility in PECVD Processes", 4th International Symposium on Silicon Nitride and Silicon Dioxide Thin Insulating Films, The Electrochemical Society, Abstract No. 358, p. 454, May 1997.				
	AN		ARTICLE: Dammel, R. R. et al., "Dependence of Optical Constants of AZ® BARLi™ Bottom Coating on Back Conditions", SPIE Vol. 3049 (1997), pp. 963-973.				
	AO		TEXT: Heavens, O. S., "Optical Properties of Thin Solid Films", pp. 48-49.				
	AP		Withmall, R. et al., "Matrix Reactions of Methylsilanes and Oxygen Atoms", Phys. Chem 1988, pp. 594-602.				
	AQ		Weidman, T. et al., "New photodefinable glass etch masks for entirely dry photolithography: Plasma deposited ororganosilicon hydride polymers", Appl. Phys. Lett 1-25-93, pp. 372-374.				
	AR		Weidman, et al., "All Dry Lithography: Applications of Plasma Polymerized Methylsilane as a Single Layer Resist and Silicon Dioxide Precursor", Journal of Photopolymer Science and Technology, V. 8, #4, 1995, pp. 679-686.				
	AS		Joubert et al., "Application of Plasma Polymerized Methylsilane in an all dry resist process for 193 and 248 nm Lithography", Microelectronic Engineering 30 (1996), pp. 275-278.				
	AT		Joshi, A.M. et al., "Plasma Deposited Organosilicon Hydride Network Polymers as Versatile Resists for Entirely Dry Mid-Deep UV Photolithography, SPIE Vol. 1925, pp. 709-720.				
	AU		Matsuura, M. et al., "Highly Reliable Self-Planarizing Low-k Intermetal Dielectric for Sub-quarter Micron Interconnects", IEEE 1997, pp. 785-788.				
TMT	AV		Horie, O. et al., "Kinetics and Mechanism of the Reactions of ...", J. Phys. Chem 1991, 4393-4400.				
EXAMINER T. M. Thomas				DATE CONSIDERED 12-07-01			
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Sheet 1 of 2

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-1398		SERIAL NO. FILED HEREWITH		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT WEIMIN LI ET AL.		GROUP 2822		
				FILING DATE FILED HEREWITH				
U.S. PATENT DOCUMENTS								
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
TMT	AA	09/146,343	09/1993	LI ET AL.			09/03/1998	
TMT	AB	09/030,618	02/1998	YIN ET AL. <i>now 6,274,292</i>	430	313	02/25/1998	
TMT	AC	09/146,842	09/1998	YIN ET AL. <i>now 6,281,100</i>	438	585	09/03/1998	
TMT	AD	09/234,233	01/1999	LI ET AL.			01/20/1999	
TMT	AE	09/200,035	11/1998	LI <i>now 6,156,674</i>			11/25/1998	
TMT	AF	09/219,041	12/1998	LI ET AL.			12/23/1998	
TMT	AG	4,833,096	05/1989	HUANG ET AL.	437	43		
TMT	AH	5,405,489	04/1995	KIM ET AL.	156	643		
TMT	AI	5,470,772	11/1995	WOO	437	43		
TMT	AJ	5,652,187	07/1997	KIM ET AL.	437	240		
TMT	AK	5,656,337	08/1997	PARK ET AL.	427	539		
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
TMT	AL	09-050993	02/1997	JAPAN (MITSURU)	007	135	Abstract	
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EXAMINER T. M. Thomas				DATE CONSIDERED 12-17-01				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

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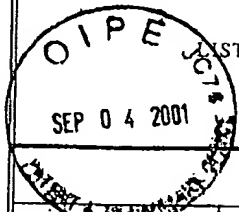
Sheet 1 of 2

Form PTO-1449

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ATTY. DOCKET NO.
M122-1395

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APPLICANT
WEIMIN LI ET AL.

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GROUP **2822**

U.S. PATENT DOCUMENTS

*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA 09/146,843 ✓	09/1998	LI ET AL.			09/03/1998
TMT	AB 09/030,618 ✓	02/1998	YIN ET AL. <i>now 6,274,292</i>	430	313	02/25/1998
TMT	AC 09/146,842 ✓	09/1998	YIN ET AL. <i>now 6,281,100</i>	438	585	09/03/1998
TMT	AD 09/234,233 ✓	01/1999	LI ET AL. <i>now 7,235,499</i>			01/20/1999
TMT	AE 09/200,035 ✓	11/1998	LI <i>now 6,156,674</i>			11/25/1998
TMT	AF 09/219,041 ✓	12/1998	LI ET AL.			12/23/1998
TMT	AG 4,833,096 ✓	05/1989	HUANG ET AL.	437	43	
TMT	AH 5,405,489 ✓	04/1995	KIM ET AL.	156	643	
TMT	AI 5,470,772 ✓	11/1995	WOO	437	43	
TMT	AJ 5,652,187 ✓	07/1997	KIM ET AL.	437	240	
TMT	AK 5,656,337 ✓	08/1997	PARK ET AL.	427	539	

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
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TMT	AL 09-050993 <i>already</i>	02/1997	JAPAN (MITSURU)	007	135	Abstract	
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Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-1398		SERIAL NO. FILED HEREWITH			
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U.S. PATENT DOCUMENTS									
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	AB	5,783,493	07/1998	YEH ET AL.	438	718			
	AC	5,807,660	09/1998	LIN ET AL.	430	313			
	AD	5,744,399	04/1998	ROSTOKER ET AL.	438	622			
	AE	6,028,015	02/2000	WANG ET AL.	438	789			
	AF	5,461,003	10/1995	HAVEMANN ET AL.	438	666			
	AG	5,883,014	03/1999	CHEN ET AL.	438	782			
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#14

APPLICANT
Weimin (Michael) Li et al.FILING DATE
March 27, 2000GROUP
2822

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

Examiner's Initials		Name
TMT	AA	Julius Grant, Hackh's Chemical Dictionary, Fourth Edition, McGraw-Hill Book Company, © 1969, reprinted by Grant © 1972, pp. 27
	AB	
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U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA	6,235,568 B1	5/01	Murthy et al.	438	231	
	AB	6,187,694 B1	2/01	Cheng et al.	438	251	
	AC	5,750,442	5/98	Juengling	438	761	
	AD	6,114,255	9/00	Juengling	438	763	
	AE	6,238,976	5/01	Noble et al.	438	259	
	AF	6,008,121	12/99	Yang et al.	438	637	
	AG	5,140,390	8/92	Li et al.	257	350	
	AH	5,286,661	2/94	de Fresart et al.	438	343	
	AI	6,184,151	2/01	Adair et al.	438	743	
	AJ	6,225,217 B1	5/01	Usami et al.	438	637	
	AK	6,004,850	12/99	Lucas et al.	438	301	
	AL	6,140,677	10/00	Gardner et al.	257	327	
	AM	6,133,096	10/00	Su et al.	438	264	
	AN	6,136,636	10/00	Wu	438	231	
	AO	5,933,721	8/99	Hause	438	217	
	AP	5,981,368	11/99	Gardner et al.	438	595	
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	AR	6,130,168	10/00	Chu et al.	438	717	
	AS	6,235,591	5/01	Balasubramanian et al.	438	275	
TMT	AT	6,198,144 B1	3/01	Pan et al.	257	412	
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Form PTO-1120

U.S. DEPARTMENT OF COMMERCE
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ATTY. DOCKET NO.
M122-1398

SERIAL NO.
09536.037

APPLICANT
weidman (Michael) Li

FILING DATE
03/27/00

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ART OF ART CITED BY APPLICANT
(Use several sheets if necessary)

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U.S. PATENT DOCUMENTS

* Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
IMT	AA 6,268,282 D1	07/11/01	Sundhu et al.	438	636	
IMT	AD 5,670,297	09/13/97	Ogawa et al.	430	318	
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FOREIGN PATENT DOCUMENTS

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APR 29 2002 PATENT & TRADEMARK OFFICE				GROUP 2822			

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*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA	6,087,267	07/11/2000	Dockrey et al.	438	719	
	AB	5,342,654	08/06/1996	Dennen	257	386	
	AC	5,656,330	08/12/1997	Niiyama et al.	427	255.395	
	AD	5,872,035	02/16/1999	Kim et al.	438	261	
	AE	4,444,617	04/24/1984	Whitcomb	438	721	
	AF	6,071,799	06/06/2000	Park et al.	438	595	
	AG	5,691,212	11/23/1997	Tsai et al.	438	247	
	AH	US 6,187,657 B1	02/13/2001	Xiang et al.	438	596	
TMT	AI	5,792,689	08/11/1998	Yong et al.	438	253	
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	AK	10/773,462		Kolfsen et al.			01/31/2001
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		Document Number	Date	Country	Class	Subclass	Translation
							Yes
	AM						No
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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
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EXAMINER T. M. Thomas	DATE CONSIDERED 08-05-02
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Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
M122-1398SERIAL NO.
09/536,037LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

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APPLICANT
Weimin (Michael) Li et al.FILING DATE
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TMT	AA	6,451,504 B2	09/17/02	Rolfson et al. (Previously cited as 09/773,462)	430	272.1	
	AB	4,552,783	11/12/85	Stoll et al.	438	677	
	AC	5,482,894	01/09/96	Havemann	438	623	
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EXAMINER

T. M. Thomas

DATE CONSIDERED

12/15/02

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Notice of References Cited

Application/Control No.

09/536,037

Applicant(s)/Patent Under

Reexamination

LI ET AL.

Examiner

Toniae M. Thomas

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2822

Page 1 of 1

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*	A	US-2001/0038919 A1	11-2001	Berry, III et al.	428/446
*	B	US-2002/0033486 A1	03-2002	Kim et al.	257/118
*	C	US-2002/0081834 A1	06-2002	Daniels et al.	438/624
*	D	US-5,413,963 B1	05-1995	Yen et al.	438/623
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	K	US-			
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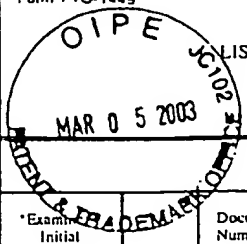
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
/	N	EP 1 172 845 A2	01-2002	EP		H01L 21/3105
/	O	JP 08-213386 A	08-1996	JP	Kudo et al.	H01L 21/316
/	P	JP 2000088261 A	03-2000	JP	Kubo	H01L 21/31
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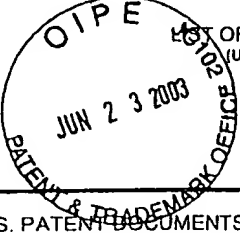
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*		Include as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-1398	SERIAL NO. 09/536.037		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				# 39			
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				FILING DATE March 27, 2000			
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TMT	AA	4,562,091	12/31/85	Sachdev et al.	427 489	X	
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	AC	5,940,509	07/10/90	Tso et al.	713 191		
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	AF	4,910,160	03/20/90	Jennings et al.	438 17		
	AG	5,429,987	07/04/95	Allen	438 654		
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TMT	AR		Wolf et al., "Silicon Processing for the VLSI Era - Vol. I - Process Technology," Prologue, page xxiii (2 pages total).				
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EXAMINER			DATE CONSIDERED				
T. M. Thomas			04-02-03				
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				FILING DATE March 27, 2000	GROUP 2822

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TMT	AA	5,986,318	11/16/99	Kim et al.	257	437	X
	AB	6,087,064	07/11/00	Lin et al.	430	270.1	
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	AD	4,870,470	09/26/89	Bass, Jr. et al.	257	324	
	AE	5,312,768	05/17/94	Gonzalez	438	227	
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EXAMINER TM Thomas	DATE CONSIDERED 09-07-03
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Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-1398		SERIAL NO. 09/536,037	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				AUG 17 2004			
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TMT	AA	6,153,504	11/2000	Shields et al	438	613	
	AB	4,971,655	11/1990	Stafano et al	438	592	
	AC	6,498,084 B2	12/2002	Bergemont	438	593	
	AD	5,036,383	07/1991	Mori	257	751	
TMT	AE	5,593,741	01/1997	Ikeeda	427	579	
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TMT	AM	08-045926A	02/1996	Japan				
TMT	AN	JP8031058	02/1996	Japan				
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TMT	AR	Wolf, S., Silicon Processing for the VLSI ERA. Vol. 3, The Submicron MOSFET p. 635
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EXAMINER T. M. Thomas	DATE CONSIDERED 02/04/05
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Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-1398		SERIAL NO. 09/536,037	
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				FILING DATE March 27, 2000		GROUP 2822	
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JmJ	AA	6,121,133	09/19/00	Iyer et al.	438	636	
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		TW 471112A					Yes No
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	AM	Wolf, S., and Tauber, Richard, Silicon Processing for the VLSI Era; Vol. 1; Process Technology; "Silicon: Single Crystal Growth and Wafer Preparation"; pages 1 and 2					
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EXAMINER		DATE CONSIDERED					
J. M. Thomas		12-08-05					
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LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)					APPLICANT: Welmin Li et al.			
					FILING DATE March 27, 2000		GROUP 2822	

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JMJ	AA	4,592,129	06/1986	Legge, Ronald N.	438	72	
JMJ	AD	6,218,929	04/2001	Foots, David K.	438	638	
JMJ	AD	5,840,610	11/1998	Gilmer et al.	438	301	
JMJ	AD	4,523,214	06/1985	Hirose et al.	257	443	
JMJ	AE	6,432,791	08/2002	Hutter et al.	438	381	
JMJ	AE	6,017,814	01/2000	Tsai et al.	428	209	
JMJ	AG	6,057,217	05/2000	Uwasaw, Kenichi	438	585	
JMJ	AM	6,200,863	03/2001	Xiang et al.	438	286	
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							Yes No
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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
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EXAMINER J. M. Thomas	DATE CONSIDERED 12-08-05
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